



# BENZONITRILE

UN 2224

Shipping Name: Benzonitrile  
Other Names: Benzenenitrile  
Cyanobenzene  
Phenylcyanide



**WARNING!** • **POISON! BREATHING THE VAPOR, SWALLOWING THE LIQUID OR SKIN CONTACT CAN KILL YOU! CONVERTED TO CYANIDE IN THE BODY!**  
• Firefighting gear (including SCBA) does not provide adequate protection. If exposure occurs, remove and isolate gear immediately and thoroughly decontaminate personnel

## Hazards:

- Vapors are heavier than air and will collect and stay in low areas
- Container may BLEVE when exposed to fire
- Irritating to skin, eyes, nose and lungs even at low concentrations
- Combustion products include toxic nitrogen oxides
- Corrosive to some plastics

## Description:

- Colorless liquid
- Almond-like odor
- Sinks in water and is slightly soluble in water
- Very flammable
- Vapors are heavier than air and will collect and stay in low areas
- Freezes at 9° F

## Awareness and Operational Level Training Response:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Evacuate or shelter in place the immediate area and downwind for a large release
- Notify local health and fire officials and pollution control agencies
- If material or contaminated runoff enters waterways, notify downstream users of potentially contaminated water

## Operational Level Training Response:

### RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release
- Use large amounts of water to disperse vapors - contain runoff
- Consider the application of foam to large areas of spilled liquid to control vapors
- Ventilate confined area if it can be done without placing personnel at risk

### FIRE:

- Specially trained personnel operating from a safe distance can fight fires using foam or dry chemical if available in sufficient amounts or use fog streams to extinguish burning liquid. Keep exposures cool to protect against re-ignition. Do not direct straight streams into liquid.
- Cool exposed containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cooling streams are ineffective (unvented container distorts, bulges or shows any other signs of expanding), withdraw immediately to a secure location

## First Aid:

- **Do not put yourself in danger by entering a contaminated area to rescue a victim**
- The contaminated victim poses a risk to the responder
- Decontaminate the victim from a safe distance with a stream of water; have the victim remove clothing if possible; provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
  - ◆ Inhalation - remove the victim to fresh air and give oxygen if available
  - ◆ Skin - remove and isolate contaminated clothing (including shoes) and wash skin with soap and large volumes of water for 15 minutes
  - ◆ Eye - rinse eyes with large volumes of water or saline for 15 minutes
  - ◆ Swallowed - do not make the victim vomit
- Seek medical attention
- Toxic effects may be delayed
- Victims should be examined by a physician as soon as possible
- Toxic effects may be delayed
- Note to physician: can produce cyanide toxicity, if symptoms indicate, initial treatment includes the cyanide antidote kit

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